

AMENDMENTS TO THE CLAIMS:

All pending claims are canceled without prejudice or disclaimer. Claims 24-49 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-23 (Canceled).

Claim 24 (New). An isolated polypeptide having antimicrobial activity, comprising the amino acid sequence:

Gly-Xaa-Xaa-Xaa-Kaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa
5 10 15

Xaa-Xaa (SEQ ID NO: 1)

wherein

Xaa at position 2 is Ile, Leu, Met or Trp;

Xaa at position 3 is Leu, Phe, Trp or Val;

Xaa at position 4 is Arg, Asn, Asp, Glu, Gly, Ile, Lys, Ser or Thr;

Xaa at position 5 is Arg, Ile, Leu, Lys, Met, Phe, Ser or Thr;

Xaa at position 6 is Ile or Leu;

Xaa at position 7 is Arg, Glu, Gly, Lys or Met;

Xaa at position 8 is Arg, Ile, Lys, Met, Ser or Thr;

Xaa at position 9 is Ala, Arg, Asn, Glu, Lys or Thr;

Xaa at position 10 is Ala, Gly, Ile, Leu, Met, Ser, Thr, Trp or Val;

Xaa at position 11 is Arg, Glu, Lys or Ser;

Xaa at position 12 is Arg, Asn, His, Ile, Lys, Met or Thr;

Xaa at position 13 is Ala, Ile, Leu, Phe, Thr, Tyr or Val;

Xaa at position 14 is Ala, Cys, Gly, Leu, Phe, Trp or Val;

Xaa at position 15 is Ala, Arg, Gln, Glu, Lys or Ser;

Xaa at position 16 is Arg, Asn, Asp, Gly, His, Ile, Met, Ser or Val;

Xaa at position 17 is Ala, Ile, Phe or Val; and

Xaa at position 18 is Arg, Cys, Gly, Leu, Phe, Pro, Tyr or Val;

wherein each amino acid is independently the D or L form and the polypeptide has antimicrobial activity.

Claim 25 (New). The polypeptide of claim 24, which consists of the amino acid sequence

Gly-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa
5 10 15

Xaa-Xaa (SEQ ID NO: 1).

Claim 26 (New). The polypeptide of claim 24, which comprises the sequence of any one of SEQ ID NOs: 2-37.

Claim 27 (New). The polypeptide of claim 24, which consists of the sequence of any one of SEQ ID NOs: 2-37.

Claim 28 (New). A pharmaceutical composition comprising a polypeptide of claim 24 and a pharmaceutically-acceptable carrier.

Claim 29 (New). The pharmaceutical composition of claim 28, which further comprises an additional biocidal agent.

Claim 30 (New). A detergent composition comprising a polypeptide of claim 24 and a surfactant.

Claim 31 (New). An animal feed additive comprising

- (a) at least one polypeptide of claim 24; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 32 (New). The animal feed additive of claim 31, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 33 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising a polypeptide of claim 24.

Claim 34 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with a polypeptide of claim 24, wherein the microbial cells are selected from the group consisting of *Bacillus* cells, *Eschericia* cells and *Pseudomonas* cells.

Claim 35 (New). A method of treating a microbial infection, comprising administering to an animal or human a polypeptide of claim 24 in an amount effective to treat the microbial infection.

Claim 36 (New). An isolated polypeptide having antimicrobial activity, comprising the amino acid sequence:

Gly-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa
5 10 15
Xaa-Xaa-Arg-Trp-Leu (SEQ ID NO: 1)
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wherein

- Xaa at position 2 is Ile, Leu, Met or Trp;
- Xaa at position 3 is Leu, Phe, Trp or Val;
- Xaa at position 4 is Arg, Asn, Asp, Glu, Gly, Ile, Lys, Ser or Thr;
- Xaa at position 5 is Arg, Ile, Leu, Lys, Met, Phe, Ser or Thr;
- Xaa at position 6 is Ile or Leu;
- Xaa at position 7 is Arg, Glu, Gly, Lys or Met;
- Xaa at position 8 is Arg, Ile, Lys, Met, Ser or Thr;
- Xaa at position 9 is Ala, Arg, Asn, Glu, Lys or Thr;
- Xaa at position 10 is Ala, Gly, Ile, Leu, Met, Ser, Thr, Trp or Val;
- Xaa at position 11 is Arg, Glu, Lys or Ser;
- Xaa at position 12 is Arg, Asn, His, Ile, Lys, Met or Thr;
- Xaa at position 13 is Ala, Ile, Leu, Phe, Thr, Tyr or Val;
- Xaa at position 14 is Ala, Cys, Gly, Leu, Phe, Trp or Val;
- Xaa at position 15 is Ala, Arg, Gln, Glu, Lys or Ser;
- Xaa at position 16 is Arg, Asn, Asp, Gly, His, Ile, Met, Ser or Val;
- Xaa at position 17 is Ala, Ile, Phe or Val; and
- Xaa at position 18 is Ala, Arg, Cys, Gly, Leu, Phe, Pro, Tyr or Val;

wherein each amino acid is independently the D or L form and wherein the polypeptide has antimicrobial activity.

Claim 37 (New). The polypeptide of claim 36, which consists of the amino acid sequence

Gly-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa-Xaa
5 10 15

Xaa-Xaa-Arg-Trp-Leu (SEQ ID NO: 1).

Claim 38 (New). The polypeptide of claim 36, which comprises the sequence of any one of SEQ ID NOs: 38-41 and 43-46.

Claim 39 (New). The polypeptide of claim 36, which consists of the sequence of any one of SEQ ID NOs: 38-41 and 43-46.

Claim 40 (New). The polypeptide of claim 36, which comprises the sequence of SEQ ID NO: 42.

Claim 41 (New). The polypeptide of claim 36, which consists of the sequence of SEQ ID NO: 42.

Claim 42 (New). A pharmaceutical composition comprising a polypeptide of claim 36 and a pharmaceutically-acceptable carrier.

Claim 43 (New). The pharmaceutical composition of claim 42, which further comprises an additional biocidal agent.

Claim 44 (New). A detergent composition comprising a polypeptide of claim 36 and a surfactant.

Claim 45 (New). An animal feed additive comprising

- (a) at least one polypeptide of claim 36; and
- (b) at least one fat soluble vitamin, and/or
- (c) at least one water soluble vitamin, and/or
- (d) at least one trace mineral, and/or
- (e) at least one macro mineral.

Claim 46 (New). The animal feed additive of claim 45, which further comprises phytase, xylanase, galactanase, and/or beta-glucanase.

Claim 47 (New). An animal feed composition having a crude protein content of 50 to 800 g/kg and comprising a polypeptide of claim 36.

Claim 48 (New). A method for killing or inhibiting growth of microbial cells comprising contacting the microbial cells with a polypeptide of claim 36, wherein the microbial cells are selected from the group consisting of *Bacillus* cells, *Eschericia* cells and *Pseudomonas* cells.

Claim 49 (New). A method of treating a microbial infection, comprising administering to an animal or human a polypeptide of claim 36 in an amount effective to treat the microbial infection.